DOCUMENT RESUME

ED 272 453 SP 027 670

AUTHOR	Hawley, Willis D.; And Others
TITLE	Improving Teacher Quality and Effectiveness. Issues for the '80s. Planning Grant for the Development of an Institutional Grant Proposal to Establish an NIE Research and Development Center for Teacher Quality and Effectiveness.
SPONS AGENCY	National Inst. of Education (ED), Washington, DC.
PUB DATE	30 Sep 85
CONTRACT	NIE-G-85-7107
NOTE	29p.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Educational Policy; Educational Trends; Incentives; Staff Development; *Teacher Effectiveness; Teacher Evaluation; *Teacher Improvement; *Teacher Motivation; Teacher Recruitment; Teacher Salaries; *Teaching Conditions

ABSTRACT

This paper presents an overview of several of the problems and conditions of the teaching profession and discusses different issues related to the development and implementation of policies, programs, and practices designed to address them. The opening section examines the conditions of teaching--employment opportunities, teacher evaluation, professional development, professional status, and salary structures. In the following sections of the paper, discussions are offered on issues related to teacher entry and retention, the enhancement of competence and the facilitation of its use, and incentives and motivation. An overview is provided of several organizing concepts through which these issues might be explored, and issues related to the meaning of "teacher quality and effectiveness" are discussed. (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED272453

IMPROVING TEACHER QUALITY AND EFFECTIVENESS:

ISSUES FOR THE '80s

Planning Grant for the Development of an Institutional
Grant Proposal to Establish an NIE Research and Development Center
for Teacher Quality and Effectiveness

Willis D. Hawley
Mark A. Smylie
Carolyn M. Evertson

Peabody College of Vanderbilt University

September 30, 1985

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

W. D. Hawley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SP 027470

This paper was prepared under Grant No. NIE-G-85-7107. Opinions expressed herein do not necessarily represent those of NIE or the U.S. Department of Education.

IMPROVING TEACHER QUALITY AND EFFECTIVENESS:

ISSUES FOR THE 80's

A great deal of concern has been raised in the past few years about the status and future of this nation's school systems. A central focus of that concern has been on the quality and effectiveness of teachers. In response to this concern, state and local policymakers have begun to develop and implement an array of policies, programs, and practices aimed to address the problems of the work force. Many of these initiatives have the potential to alter the profession in dramatic ways.

In this paper, we present an overview of several of the problems and conditions of the teaching profession and discuss different issues related to the development and implementation of policies, programs, and practices designed to address them. We note at the outset that thinking about and embarking on efforts to improve teacher quality and effectiveness are complicated tasks. First, we face the problem of identifying exactly what we mean when we talk about teacher quality and effectiveness and what we are trying to achieve when we develop and implement policy to improve the profession. Second, the work of teachers takes place in a number of complex interrelated contexts that can both mediate and be mediated by efforts to improve the quality and effectiveness of individual teachers or groups of teachers. And, third, there are a series of important relationships between the contexts of teachers' work, the broader contexts of the policy environment, and the individual needs, concerns, and perceptions of teachers themselves that must be considered if we are to understand the implementation and impact of current improvement initiatives and make more effective the steps we take to help improve the quality and effectiveness of teachers in the future.

This paper does not attempt to provide a comprehensive review of all the issues that might and perhaps should be considered as we explore ways to improve teaching for our children. Instead, we focus on those issues that seem most pertinent to some of the most important current policy initiatives. We also focus on several issues that have not received much attention but nevertheless hold some promise for developing a broader understanding of the lives and work of teachers and future initiatives to address the problems of the profession.

Conditions of Teaching

Recent reports on American education have highlighted a number of problems in our teacher work force. The National Commission on Excellence in Education in A Nation at Risk (1983) found, for example, that not enough of academically able students are being attracted to teaching; that preservice education inadequately prepares teachers for effective practice; that the professional working lives of teachers are on the whole unacceptable; and that a serious shortage of teachers exists in key areas. These findings were echoed in other reports including those issued by the Education Commission of the States (1983), the National Science Board (1983), and the Carnegie Foundation (1983).

Research on the teaching profession illuminates some important dimensions of these conditions and identifies others of concern. It is becoming an all too familiar litinany. The National Center for Education Statistics estimates that the country will need to fill 1,553,000 teaching positions by

the year 1992 and that the nation's teacher preparation programs will produce only 1,270,000 graduates over that period of time (Plisko 1984). Graduation from teacher preparation programs has declined by more than 50 percent over the last 10 years and the proportion of teachers being prepared at smaller, often less selective institutions has increased (Feistritzer 1984). The rate of teacher attrition overall has decreased greatly. Over the past decade, the percentage of teachers with less than five years of experience dropped from over 25 percent to 8 percent (Plisko 1984). The age distribution of teachers in the work force is very uneven suggesting big outflows in the not too distant future.

The introduction of preentry screens (e.g., tests, grade point averages, and undergraduate or graduate course requirements) could result in significant reductions in the number of prospective teachers, especially minority candiates (Manski 1985; Goertz, Ekstrom, & Coley 1984). New employment opportunities for women and minorities that have arisen over the past decade now compete with teaching for the most academically able of these populations at the entry level, and, perhaps throughout the teaching career (Schlechty & Vance 1981; Weaver 1981; Darling-Hammond 1984; Sweet & Jacobsen 1983). Surveys of persons who profess an interest in teaching indicate that this trend may be more true for minorities than for women (Plisko 1983; Applied Systems Inst. 1985). And, there are indications that those persons who enter teaching--at least those who declare an interest in teaching--are less academically able than those who express interest in and enter other careers (Vance & Schlechty 1982). Those teachers who leave teaching are generally more academically able than those who remain (Schlechty & Vance 1983).

Studies of preservice education programs show some evidence that they make a positive contribution in the preparation of teachers. That is, teachers with formal preservice training are generally rated as more successful than those without it (Evertson, Hawley, & Zlotnik 1985). Still, many teachers report that they are ill-prepared for their first classroom experiences (Veenman 1984; McDonald & Elias 1983; Fuller 1969). When veteran teachers look back on their formal preservice training, most remember their education coursework as too theoretical and not sufficiently practical (Dreeben 1970; Garde 1978; Lortie 1975).

Once on the job, opportunities for professional development and continued learning are, in many instances, restricted. Formal staff development, one of the most widely implemented improvement strategies, does not often provide meaningful and productive opportunities for the improvement of practice. On the average, teachers spend very little time in staff development activities (see Joyce, Bush, & McKibbin 1981). In many school systems, staff development efforts are one-shot, once-a-year programs that are usually carried out before school begins without follow-up. Most staff development programs are general in nature and do not focus on specific strategies that may be applied in classrooms or on problem solving. Many programs are developed and conducted outside the context of the school, are designed by school district administrators, and tend to address administrators' general concerns rather than teachers' concerns and needs.

Learning from feedback about performance through evaluation is potentially another source of learning and improvement. However, the value of this source is often limited by the infrequency of evaluation and by systems that are not clear with respect to the purposes of evaluation or criteria for assessment;

that do not allow for the collection of information relevant to the effective diagnosis of problems in classroom performance; and that do not prescribe clear directions for improvement (see Darling-Hammond, Wise, & Pease 1983). Indeed, formal evaluation efforts are often more ceremonial than substantive.

Informal feedback through collegial exchange among teachers is another ways that teachers can learn and improve their practice (Rosenholtz & Smylie 1984). However, the problem of teacher isolation in many schools is one of the greatest impediments to this source of improvement. Teachers spend most of their time isolated from other teachers. Lortie found, for example, that 45 percent of the teachers in his study had no contact with other teachers in the course of their workday and another 32 percent had only occasional contact. When teachers do interact, they usually do not discuss their work or collaborate to solve shared problems (Feiman-Nemser & Floden, in press).

Teacher isolation creates and tends to reinforce teachers' belief that they alone are responsible for running their classrooms and that to do so successfully requires maximum autonomy and independence. Many teachers fear that requests for assistance from colleagues implies a lack of teaching competence (Lortie 1975; Bishop 1977; Glidewell, Tucker, Todt, & Cox 1983). This fear is particularly acute for beginning teachers (Hoy 1969; Silvernail & Costello 1983; Warren 1975). Because of the implications that requests for or offers of assistance have for negative perceptions of competence, most teachers feel a clear moral constraint against offering or asking for suggestions about even the most routine matters (Glidewell et al. 1983). Overall, as Silver (1973) has suggested, teachers have peers but seem to have few colleagues.

These conditions leave teachers with few alternative sources of learning and improvement. Opportunities for professional development outside the workplace, such as university coursework, conferences, and institutes, are often irrelevant to teachers' day-to-day needs and concerns, are often seen by teachers as insufficiently practical, and are often focused on some role the teacher may assume in the future (e.g., administrative roles) rather than on activities in which the teacher is currently involved (see Schlechty & Whitford 1983). Most teachers are left in their day-to-day work to rely on learning from experience and trial and error or drawing on memories of techniques used by teachers they had in school. These sources seem very limited and indeed may be counterproductive to the improvement of practice (Buchmann & Schwille 1983).

There are other problems regarding the conditions of teaching. When compared to other occupations, teachers' beginning salaries are abysmally low. The U.S. Department of Labor (1984) reports that the 1984 average beginning teachers' salary of $14,500 was almost $6,000 less than the average beginning salary for sanitation workers, $8,000 less than the average beginning salary for bus drivers, and almost $10,000 less than the average beginning salary for plumbers. Beginning teachers know what they will earn in the future and can see that long service carries with it limited financial rewards (Lortie 1975; Schlechty & Vance 1983). Unlike other professions, teachers' earnings begin relatively high with respect to their ultimate earning potential. Teachers at the top of their salary schedule are likely to be relatively young professionally. Those who attain the top of their salary schedules--after about 15 years of service--are only slightly older than doctors completing their residency. At precisely the same point that other

professionals begin climbing toward their earning potential, the earning potential of teachers has already peaked.

Teaching as a profession exhibits few of the characteristics that define other professions such as medicine or law. Opportunities for career advancement have been virtually nonexistant within teaching. Advancement has traditionally meant leaving the classroom to assume administrative roles and responsibilities. The lack of career stages within teaching, unlike other professions, provides little opportunity for upward mobility and orientation toward the future (Lortie 1975; Rosenholtz & Smylie 1984). Teachers have virtually no control over who enters and remains in their ranks. They have been unable to have substantial influence over the development of standards that define acceptable and effective practice and ways to measure and evaluate performance. And, teachers have had little control over determining how to improve themselves and the effectiveness of their peers.

The traditional teaching salary structure and these characteristics of the profession seem to be clear obstacles to attracting the most qualified persons to teaching. Individuals who do not choose teaching as a career frequently cite low salaries and low occupational status as the two least encouraging factors in attracting the most able persons to teaching (Bredeson, Fruth, & Kasten 1983; Page & Page 1982). Indeed, low salaries are consistently cited as one of a variety of reasons why teachers decide to leave the profession (Chapman 1983).

Given low relative salary structures and occupational status, it is not surprising that most persons who enter teaching cite the importance of helping students learn and working with other people (Lortie 1975; Wood 1978; Robertson, Keith, & Page 1983). While teachers enter the profession with and over time develop a variety of needs they seek to fulfill through their work, and while schools and the profession as a whole offer a variety of incentives and rewards (see Feiman-Nemser & Floden, in press), there is evidence that the conditions of schools as workplaces often frustrate teachers' efforts, their effectiveness, and their opportunities for learning and improvement. The isolation of teachers from their peers in the work setting is one important condition. But there are other important conditions in the workplace that seem to have an impact on teachers' work and their effectiveness with students. Among these conditions, as reported by teachers, are lack of opportunities for professional growth and development, inadequate preparation and instructional time, conflict with and lack of approval or support from principals and other administrators, and failure to deal effectively with student misbehavior. Many of these conditions are given as specific reasons, and indeed as more important reasons than low salary, why teachers decide to leave the profession (Frattaccia & Hennington 1982; Bredeson et al. 1983; Litt & Turk 1983).

The American public has had a curious ambivalence about teachers. The myth has been sustained that we treasure our teachers and that we owe some portion of our current educational success to at least some of them. At the same time, we have failed to accord the profession with the status, rewards, and support that seem important, even necessary, to facilitate teachers' work, promote their effectiveness, and enhance their professional lives. And, recently, there has been an outpouring of policies, regulations, and tests designed to increase teacher competence; demands for upgrading or eliminating teacher education programs; and plans for rewarding merit that reflect deep concern about the quality and effectiveness of our teachers. These initiatives, coupled

with our perceptions of teaching as a less than attractive occupational choice, seem to reflect a shattering of the myth, but not, perhaps, our national ambivalence.

The Recent Focus on Teacher Quality and Effectiveness

This concern carries with it at least an implicit recognition that teachers do indeed make a difference. The various ways that teachers shape the prospects for student learning are increasingly well recognized. Hawley and Rosenholtz (1984) have described teaching as the "core technology" of formal education. They argue:

> [T]he most effective way to improve the achievement of a given student is to improve the quality of teaching that the student experiences. Not only does the research on student achievement increasingly document the influence of the things teachers do on student achievement, there is an enormous amount of evidence that teachers have a significant impact on efforts to change schools and on the nature of the student's experience, whatever the formal policies and curricula of a school or classroom might be. Teachers modify curricula, intentionally or not. They keep the gates through which students must pass to gain access to the learning resources available. Teachers allocate and manage students' time, set and communicate standards and expectations for student performance, and in a multitude of other ways, enhance or impede what students learn. (pp. 6-7)

This level of awareness that the skills and knowledge of our citizens and workers are heavily influenced by teachers comes together with a sense that the quality of education children receive has slipped and that we are in jeopardy of failing to effectively compete economically, politically, and militarily with other industrialized nations (see e.g., National Commission on Excellence in Education 1983).

Efforts to enhance the quality and effectiveness of teachers are especially important now for several reasons. Teacher effectiveness is an increasingly important source of the contributions the educational system makes to the economic welfare of individuals and of the nation as a whole. About one-fifth of the post-World War II per capita growth in our economy has been attributed to the increasing school attainment of the population (Saks 1984). The opportunities for dramatic increases in productivity, or in those many noneconomic benefits of schools, from further increases in the average school attainment of the population are becoming increasingly limited. Further improvements in our economy and society from the education sector will mainly have to come from improvements in the quality of the educational experiences of children during the years they spend in school. It is also timely that we consider ways to enhance teacher quality and effectiveness now because the society is beginning to increase its funding for schools and it is far easier to program than to reprogram funds. Moreover, as much as 50 percent of the teaching work force will be hired over the next decade, and this provides a special opportunity to improve the teacher corps. All this means is that it is a particularly opportune time for research and development of policies, programs, and practices related to the improvement of teacher quality and effectiveness. We have a "window of opportunity" to bring about significant improvements in our schools and in the education of our children.

How then should we focus our efforts? Simply put, to improve the quality and effectiveness of teachers, we must (1) recruit capable persons and retain them in the profession, (2) continuously enhance the competence of teachers who are recruited to and who are currently in the work force in ways that enhance their effectiveness, (3) establish conditions in the workplace that facilitate the effective use of that competence, and (4) motivate teachers to do their best and to improve their practice.

States and local school systems have laid before us a policy agenda that addresses many of these and other education priorities. Across the nation, policies, programs, and practices are being developed and implemented that have the potential to restructure the teaching profession in dramatic ways. We have at this time, as we perhaps have had at no other time, the opportunity to examine the effects of these initiatives in practice not only to assess their impact on the work and productivity of teachers, but to generate important new knowledge about the teaching profession that can help us address issues of teacher quality and effectiveness in the future.

In the following sections of this paper, we discuss different issues related to teacher entry and retention, the enhancement of competence and the facilitation of its use, and incentives and motivation. First, it seems useful to provide an overview of several organizing concepts through which these issues might be explored and discuss several issues related to the meaning of "teacher quality and effectiveness."

Organizing Concepts: Decision Making and Motivation Theory

The quality and effectiveness of teachers result from individual and institutional decisions about entry to and retention within the profession and the development and use of professional competence. Theoretically, choices depend on an evaluation of the benefits and costs by various institutions and actors, including prospective teachers, teachers in the profession, teachers' peers, schools and school systems, and various other government units. Seen in these terms, effective strategies for enhancing the effectiveness of the teacher work force center around motivating people of ability to make choices that would result in desirable outcomes. This simple formulation of the problem provides a framework within which a number of complex issues can be fruitfully examined. Thinking of teacher quality and effectiveness as the product of individual and institutional decision making takes us on a search for the determinants of teacher behavior that would allow one to predict the consequences of the interaction between teacher perceptions, skills, and motives on the one hand, and incentives and conditions facilitating or impeding action on the other.

The search for an understanding of these determinants is manifest in much of the research in the broad field commonly called organizational behavior. Perhaps the most widely accepted general theory of human motivation in workplaces is the so-called Vroom-Atkinson Theory (Vroom 1964; Atkinson 1958). This theory postulates that motivation is a function of the salience of the needs of individuals, the perceived relevance of available incentives to those needs, and the probabilities the individual attaches to the likelihood that the incentives they feel are worth pursuing can be obtained. Of particular importance is that this formulation makes the efficacy of institutional initiatives contingent on the "perspectives" of those whose behavior the institution seeks to influence. Of course, the perspectives of individuals are not independent of the institutional contexts in which they find themselves. In this reality

lies the importance of organizational values and cultures and the relationships between this collective manifestation and individual perspectives.

Thus, efforts to enhance the quality and effectiveness of teachers must alter one or more of three different elements: (1) the teacher's or prospective teacher's perceived needs and goals, (2) the nature of incentives relevant to those needs and goals, and (3) the real or perceived likelihood of the teacher to attain these incentives. Changing one of these elements may change the importance of others in determining teacher actions. For example, changes in individual capacity may lead to changes in perceived needs (Argyris 1964).

Fundamentally, then, it would be important to know how certain key choices teachers and prospective teachers make during their careers can be influenced so as to enhance their contributions to the educational system. These key choices, or decisions, include:

1. whether to become a teacher (entry)
2. whether to try to increase one's competence (improvement)
3. how hard to work (motivation)
4. whether to remain in the profession (retention).

These individual decisions are, of course, interrelated. Further, they are influenced by institutional choices to create conditions and incentives that motivate behavior and to enhance opportunities or conditions that facilitate the application of teachers' energy and competence. The effects of these choices are likely to vary depending on the goals and needs of teachers and the goals and needs of institutions.

As we stated earlier, this is an opportune time to investigate how constellations of different policies, programs, and practices intended to improve teacher quality and effectiveness address four priorities: (1) recruitment and retention, (2) improvement, (3) creation of conditions that facilitate the effective use of competence, and (4) motivation. Of fundamental concern and interest should be interactions between policies, programs, and practices that aim to address each of these priorities and the perspectives, lives, and work of teachers, and how these interactions result in a variety of decisions and outcomes. We add to this formulation the notion that the consequences of these interactions are importantly affected by the contexts in which they occur (e.g., the culture, the policy environment, the characteristics of students and parents served, etc.). Thus, to understand the impact of policy on teachers' decisions and related outcomes, we must also understand how different contexts of teaching influence and are influenced by policy and thereby mediate the impact of policy on teacher decisions and outcomes.

We illustrate how these sets of variables may relate to one another in the diagram presented in Figure 1. This diagram portrays policies, programs, and practices shaping and being shaped by the contexts of teaching. We identify several contexts that seem particularly important. These include, but are not limited to, the relevant teacher labor market, attitudes about the profession, professional organizations, state education agencies (SEAs), local school districts (LEAs), schools, management structures within schools, teachers' peers, students, and parent and community support. These contexts serve as mediating systems for teachers' decison making and for the outcomes related to quality

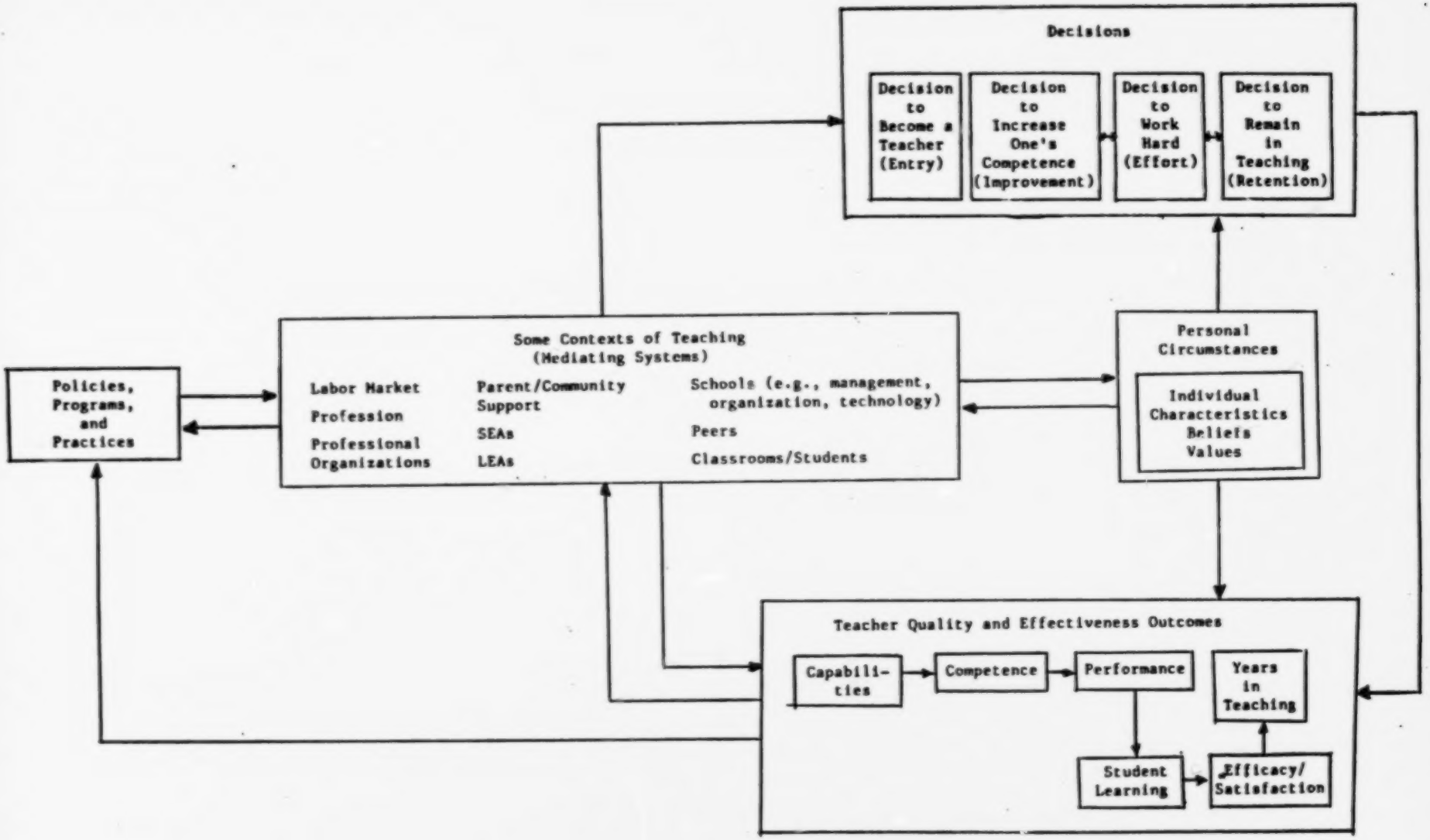

Figure 1. Conceptual Framework for the Study of Improving Teacher Quality and Effectiveness

and effectiveness that result from those decisions. Outcomes, in turn, help shape both the contexts of teaching and the policies, programs, and practices themselves. We include in this framework the individual's characteristics, beliefs, values, and personal circumstances, which we believe exert influence on and are influenced by the contexts of which the individual is a part, the decisions the individual makes, and the outcomes that result from those decisions. We identify several outcomes that seem particularly important. These include, but are not limited to, the qualities or capabilities teachers bring with them to teaching, the competencies teachers apply to teaching (e.g., knowledge of subject matter, clarity of communication, expertise in the use of particular teaching methods, etc.), the application of competencies in practice (performance), teacher efficacy and satisfaction, years in the profession, and ultimately, student learning.

Perspectives on the Meaning of Teacher Quality and Effectiveness

When contemporary policymakers and pundits talk about teacher quality, they usually refer to academic ability and intelligence. Thus, references to concern over quality usually cite low scores on standardized tests, low rank in high school class, or the relative intellectual rigor of preservice education courses. Teacher intelligence and academic record are important aspects of teacher quality, but they do not cover enough ground. When teachers are recruited, they possess a range of capabilities that might affect their eventual effectiveness in the classroom (e.g., intelligence, enthusiasm, commitment, empathy, flexibility, creativity, etc.). Presumably, these capabilities are the qualities they bring to teaching. Thus, teacher quality consists of different capabilities that may be thought of as resources that may contribute to teacher effectiveness. How these capabilities are related to teacher effectiveness is, however, not a question that is easily answered because one cannot know what qualities result in effectiveness without linking them to one or more desired outcomes. Furthermore, these capabilities change over time and their relevance to any given outcome may be situational and role-related.

Teacher effectiveness can be defined in terms of the contributions teachers make to student learning. Student learning, of course, may involve any type of learning valued, including the development of social behaviors, attitudes, skills, and knowledge. As Brophy and Good (in press) observe, "most definitions [of teacher effectiveness] include success in socializing students, promoting their affective and personal development, in addition to success in fostering their mastery of formal curricula" (p. 1). Not everyone agrees with this usage, but what usually divides researchers, policymakers, and educators is what one takes as indicators of effectiveness.

To many policymakers, parents, and citizens, it seems clear that teacher effectiveness should be measured by student gains on standardized or special achievement tests. On the other hand, most researchers and other experts, including most teachers and many local and state education administrators, believe that student gain scores are inappropriate as a sole measure of effectiveness because so many factors that influence student achievement are beyond the teacher's control. Another perspective suggests that teacher effectiveness should be measured in terms of the process that teachers engage in doing their work. This process is often assumed to be related to student learning. While focus of attention has begun to shift toward a process orientation, there remains much disagreement about the elements that constitute this process.

Shulman (in press) draws a helpful distinction between pragmatic conceptions and normative conceptions of teacher effectiveness. Pragmatic conceptions are grounded in certain teacher behaviors and practices that have been shown to correlate empirically with student achievement or other student outcomes. Normative conceptions derive from theory or ideology. There is much debate about which conceptualization should guide our thinking. Behind each argument lies degrees of confidence one has in the supporting evidence. Of course, the evidence supporting either approach is far from definitive. While research on teaching has made significant gains in the past decade in developing our understanding of classroom processes and teacher practices, that research has shown that teaching practices that have been correlated with student learning vary with context and learning objectives. In some cases, a practice that has been used effectively in one setting will have opposite effects in other settings (see Soar & Soar 1983). And, characteristics and practices of teachers that were thought theoretically to be related to effectiveness, such as years of experience and advanced degrees, have not held up well in empirical tests (see Murnane 1975; Summers & Wolfe 1977; Brown & Saks 1975; Wendling & Cohen 1981).

At the bottom line, we are not certain about what teacher characteristics, processes, and practices result in teacher effectiveness across contexts and across time. Rowan's (1985) admonition with respect to defining and measuring school effectiveness seems to apply as well to the case of teacher effectiveness:

> School effectiveness can be defined in many ways, and these definitions can change over time and vary among groups. Thus, "effectiveness" should be measured by gathering multiple measures from numerous groups, and the interrelationships among these different measures should be examined. (p. 103)

While such an electic approach to the study and determination of teacher effectiveness seems appropriate, even necessary, we should note that most current initiatives to improve teacher quality and effectiveness do not rely on multiple perspectives. However, the perspective or perspectives that are implicitly or explicitly adopted as a basis for policy may have important consequences for implementation and for the intended and unintended outcomes that are achieved. Exploration into and clarification of what we mean when we speak about teacher quality and effectiveness, and what policymakers mean when they development and implement strategies to improve quality and effectiveness appear, then, to be a first order of business.

Issues for the '80s

There are three broad sets of issues that seem important to the improvement of teacher quality and effectiveness in the next 5 to 10 years. These issues may be grouped according to the priorities identified earlier in this paper--recruitment and retention, enhancement of competence, facilitation of the effective use of that competence, and motivation. These priorities are, of course, interrelated in important ways. In our discussion below, we shall identify several of these relationships to show how efforts to address one priority may have important consequences for the others.

Recruitment and Retention

As the organizing framework above suggests, decisions to enter and remain in teaching revolve around a fit between individual needs, the range of options available that are thought to meet those needs, and how difficult it is to attain the option that best meets those needs (see Katz & Kahn 1978; Holland 1973). Whenever someone works as a teacher, two types of decisionmakers have to have come to an agreement. First, the particular teacher must agree to supply time and effort to the school. Second, school authorities must offer, or provide demand for the job. Although both sides must agree, it is often convenient to talk about the two sides of the market separately.

Let us first consider the supply side of this market--the decision of qualified, as determined by the employer, individuals to seek the relevant qualifications and to offer their time and effort to a school system for some period to time under certain working conditions, including salary. While mid-career retooling is still a possibility in our economy, the careers of most teachers begin with decisions in college, or immediately after college, to seek teaching qualifications. Economists usually think about this as a "human capital" decision where the student compares the costs of becoming a teacher (including the foregone earnings involved in time spent training rather than doing something else) with the expected present value of the lifetime income and satisfaction associated with that occupation for that particular individual. The individual tries to pick the occupation which is expected to be best for him or her.

This admittedly simple view of occupation choice has some immediate implications. Students are more likely to become teachers if (a) their other occupational alternatives are worse (including higher unemployment in other fields or lower wage prospects), (b) it is cheaper to become a teacher (in terms of years of training or other ways), (c) the teaching option offers more career flexibility, (d) their expected salary is higher (and we do not know whether they look at average salaries and how they respond to salary differentiation--that probably depends on self-assessment of ability and attitudes toward risks), and (e) there is more nonpecuniary compensation (e.g., intrinsic rewards) in the profession as compared to others to which the individual might have access. There is also a decision to make about teaching specialities and, since there has been relatively little salary differentiation in education, that decision is heavily driven by the probability of finding a "suitable" job quickly upon graduation, the perceived costs and benefits in terms of future rewards of training for alternative specialities, as well as the prospective teacher's interests and talents.

The pool of potentially qualified teachers may be heavily determined according to the above scenario, but a substantial fraction of that pool either never enters teaching or drops out of teaching in particular places for particular periods of time. Dropping out may not necessarily be a bad thing, since it often reflects useful sorting and matching of individuals to jobs in our complex economy. But to understand teacher supply and its quality distribution at any point in time, it is important to understand why certain types of teachers enter, leave, or remain in particular schools or even in the profession itself. Those who do drop out of the profession always provide a reserve pool and the reentry behavior of this large group can easily provide substantial adjustment to labor market imbalances. The teacher reserve pool has received little attention by policymakers and most researchers although its size and the characteristics and career decisions of its members have

very important implications for policy and our efforts to remedy teacher shortages. Changes in this group's behavior, for example, could easily swamp the predictions of simple models about teacher shortages over the next decade in some regions and for some teaching specialities.

This takes us to the demand side of the labor market. School authorities derive their demand for teachers from their need to educate the children in the district. This is largely a demographic phenomenon, although the authorities may have many options to choose among teachers. School authorities can influence the distributions of qualities of teachers and the experience levels of teachers among schools and classrooms by placement decisions. They can vary class sizes, curricula, professional development opportunities,and many other aspects of schools in ways that will affect the size and the distribution of the different characteristics of the teaching force in particular schools. The ways school authorities select and sort members of their teaching staffs and the ways they influence and respond to the distribution of teaching qualities is an important issue but one that has received far too little attention.

The quality of the teaching force is determined in large part by the way processes of recruitment, retention, and reentry function. It seems useful to examine these processes from a labor market perspective in which supply and demand are balanced at a level that determines the price and other contitions of employment. Such study, unlike most previous efforts, must take into account that the job market for teachers is geographically localized and subdivided into many speciality areas in which considerable substitution can occur. These factors can have significant impact on our understanding of the labor market, the characteristics and distribution of the workforce, and why different policies may be more successful and cost-effective in recruiting qualified teachers in some localities and in some specializations than in others.

We need to develop a more complete understanding of how the teacher labor market, or more accurately, the different teacher labor markets, operate. But we need to go beyond descriptions of how these labor markets work to understand how particular policies help meet the demand for teachers with well-qualified applicants. In most states and localities, responses to shortages in the supply of qualified teachers have been to avoid the sources of the problem. For example, many communities, states, and postsecondary institutions have lowered entry and certification requirements. One way this is done is by providing persons with provisional certificates or with waivers of certification requirements. This "solution" usually results in the employment of teachers who may be less effective in promoting student learning that those who meet the formal requirements of certification (Evertson, Hawley, & Zlotnik 1985). Other ways of dealing with teacher shortages that evade resolution of the supply problem and probably reduce the pressure to increase the incentives that might attract and retain more qualified teachers include hiring part-time teachers and increasing pupil-teacher ratios. This last strategy also can reduce student learning.

Recently, states and local school systems have begun to develop and implement other types of policies and programs that are intended to attract and select more qualified applicants to teaching. These initiatives include (a) various preentry requirements, such as tests, course requirements, and extended preservice preparation programs; (b) special loans and scholarships to attract more capable people to preservice education programs; (c) increased economic benefits such as across-the-board salary increases, special bonuses, differential and performance-based-pay; (d) status benefits, such as career ladder

programs, differential responsibilities, and increased authority. Other policy options include improvement of working conditions and increased intrinsic rewards. However, these last two types of initiatives have received virtually no attention from policymakers concerned with teacher recruitment and retention, although they have always been of concern to teachers and their organizations (Hawley 1985b). Indeed, recent research strongly suggests that working conditions and intrinsic rewards are very important in teachers' decisions to remain in the profession (Rosenholtz & Smylie 1984).

But how is one to know whether these policies work, or, more importantly whether one works and is more cost-effective than another? Too often, the test of whether the teacher supply is adequate is simply the number of positions left unfilled by teachers of certified qualities. But this is hardly enough evidence upon which to judge the efficiency and effectiveness of different strategies. We might look instead at a range of possible outcomes from efforts to attract and retain people who have the potential to be, or are, effective teachers. Such outcomes might include: (a) the quantity of teachers available to teach specified curricula; (b) the quality, measured by academic capabilities, of teachers; (c) the effectiveness of teachers, measured by their classroom performance as related to student learning; (d) the economic cost; (e) consequences for restructuring schools as workplaces in terms of the role of teachers, the nature of instruction, etc.; and (f) the consequences for the profession and teaching as a career through such measures as stability of the work force, differentiation of tasks based on mode of entry, and so forth.

Teacher retention poses a number of different but related issues. Are strategies that may be successful to recruit persons of desired capabilities to the profession sufficient to keep them there? The answer to this question depends, of course, on different needs of persons that are attracted to teaching, as well as those who are already in the work force, the ability of schools and school districts to meet those needs, and attainable career alternatives. As we suggested in our discussion of the conditions of teaching, those persons who enter the profession do so with knowledge of the extrinsic rewards that will be available to them throughout their professional careers. Most teachers who do enter the profession cite intrinsic factors such as working with other people and helping children learn as primary reasons for their decisions. Those who do not choose teaching generally cite the lack of financial reward as a primary reason for choosing an occupational alternative. And, those teachers who leave the profession generally cite factors that impede or constrain their ability to achieve intrinsic rewards as primary reasons for their departure. This is not to say that teachers do not value financial rewards or that increased financial rewards might not affect their decisions to enter and remain in the profession. But given the apparent importance of intrinsic rewards, it will be important to know whether capable teachers who might be attracted to the profession because of increased financial rewards (e.g., higher salaries, bonuses, performance-based-pay) would choose over time to remain in the profession in the absence of efforts to create working conditions that would increase the likelihood of the achievement of intrinsic rewards. At what point might increased salary and other extrinsic rewards begin to outweigh other rewards in teachers' decisions to enter and remain in teaching? We might conceivably, although it is unlikely, be able to raise the financial rewards of teaching to be commensurate with other professions and thus reduce the importance of intrinsic rewards, but we must ask what impact this might have on the characteristics of the people that are attracted to teaching, the performance of teachers in the classroom, and student learning.

What seems important, then, is to explore ways to alter the reward structure of the profession to make it more attractive to those who we wish to enter teaching, but also to address the reward structure and conditions of the workplace to keep those teachers in the profession and to encourage and facilitate their effective performance, which also will have a direct impact on their decisions to remain in or leave teaching.

Enhancement and Use of Competence

Teacher effectiveness is only partially accounted for by the qualities or capabilities teachers bring with them to the act of teaching. As we noted in the introduction to this paper, preservice education seems to make a positive difference in the preparation of teachers, but this preparation is often insufficient to help teachers deal with their first classroom experiences. Teachers, then, must find ways to continue to learn and improve on the job.

The professional literature is replete with discussions about and testimonials on behalf of the importance of continuing efforts to enhance teacher competence. However, most of the national commission reports and most state reform initiatives give short shrift to many important issues and problems related to increasing teacher competence and the effective use of that competence. There are at least three general approaches to increasing the competence and effectiveness of teachers in the work force. These approaches include:

1. opportunities for "in-house" staff development that range from formal training and instruction to opportunities to observe, interact informally with, and learn from teaching colleagues
2. accurate and frequent feedback about behavior and performance
3. professional development external to the workplace, such as additional formal university education and participation in conferences, institutes, and workshops.

While the focus of much of what schools and school systems do to improve teacher effectiveness is on one or more of these three approaches, there is an increasing awareness on the part of many researchers and some policymakers that educational improvement initiatives, including efforts to improve teaching, either succeed or fail at the school level (Fullan 1982; Elmore & McLaughlin 1984). This recognition runs smack into the propensity of many state and local policymakers to prescribe not only goals and standards but detailed processes by which improvement should take place. Be that as it may, teacher effectiveness, as well as teacher motivation, satisfaction, efficacy, and retention, depends a great deal on the nature of the school-level support for change and improvement and on the conditions of teachers' work.

Thus, efforts to study and improve the effectiveness of teachers must focus on promoting effective practice within schools. They must consider every aspect of the contexts of teaching, from the factors that influence the individual teacher's decisions and actions to the characteristics of the classroom and school that facilitate or constrain those actions. Teacher improvement is synonimous with school improvement. Schools must change in ways to promote effective teaching by continuing to enhance the knowledge and skills of teachers and by creating conditions that support teacher learning and the effective use of that learning in the classroom.

We reviewed briefly in the first section of this paper some of the problems associated with the three above-mentioned approaches to increasing teacher competence and with the workplace conditions of schools. We turn now to a discussion of several important issues related to these sources and contexts of learning, improvement, and effective practice.

Staff development. Formal staff development programs are one of the most widely used strategies to achieve school and system objectives. While data for many school districts are not readily available, the financial commitment for some districts can be quite large ($1,000 to $1,700 per teacher in districts surveyed by Moore & Hyde 1980; see also Fenstermacher & Berliner 1983). Despite this major investment, we do not really know how effective staff development is in promoting student achievement. Most "evaluations" of staff development programs do not go beyond simple and more or less immediate statements of personal satisfaction from participants (Loucks & Melle 1982). However, the literature that has examined staff development programs with more carefully designed evaluation suggest some agreement on different components of effective staff development (see Sparks 1983; Joyce & Clift 1984; Joyce & Showers 1983; Hawley & Rosenholtz 1984). Some of these components include:

1. focusing on skills that have a demonstrable relationship to student learning
2. training that is both practical and theoretical enough for teachers to be able to adapt what is learned to their specific situations
3. planning and developing activities on the basis of the problems and concerns identified by both teachers and administrators
4. providing training activities that include objective evaluation of teachers' strengths and weaknesses, presenting new information, demonstrating new skills, providing opportunities for practice, and providing concrete feedback
5. supplying technical assistance to help teachers and administrators implement new strategies
6. ensuring administrator support for, and involvement in, training at the school level
7. integrating continuous staff development activities into the regular daily activities and routines of the school.

While there is growing agreement about the importance of these and other components of staff development, there is not concensus. For example, Wade's (1984) study of staff development research raises questions about whether programs should be school-based, how useful peer instruction is, and how learner-centered programs should be.

Lack of concensus about effective staff development strategies, coupled with a relatively weak research base, high levels of investment, and the proclivity of school systems to rely on staff development to achieve various objectives, make further investigation into the components and processes a crucial issue in the design and funding of staff development programs to improve teacher effectiveness. More specifically, it seems important to address questions about which processes are most cost-effective for training, delivery of new information, and opportunities for practice. What is useful and important content for staff development programs? How can teachers best be guided

to use new knowledge and skills in the classroom? What kinds of skills are required for the adaptation of new knowledge and skills to specific classroom contexts? And, given the importance of teaching contexts to the work and effectiveness of teachers, what school conditions are most likely to support ongoing staff development, experimentation, and adaptation of new knowledge to solve continuing problems and enhance the quality of instruction?

Learning from colleagues. In theory, one significant source of learning teachers have is interaction with teaching colleagues (Rosenholtz & Smylie 1984). The practical knowledge of teachers is a rich resource for learning and improvement (Feiman-Nemser & Floden, in press). However, access to this source of information is often limited by normative and structural constraints on interaction within many schools.

Little (1982), however, has identified schools where prevailing norms and patterns of collegial interaction do enhance the acquisition of skills and their application in the classroom. This type of collegialexchange seems to reinforce further productive interaction. It leads to group problem-solving, social support, and ongoing professional development. Collegial norms can support informal evaluation of professional performance and feedback which enhances competence. The relationship of collegiality to the development of competence appears to be recursive. The development of competence contributes to teacher satisfaction and efficacy. As teachers improve, they feel more competent and strive to uphold the system that contributed to this competence and success.

While we know about the importance of collegial work environments for enhancing teacher competence and in improving educational opportunities for students, we know very little about the strategies that might be used to create environments conducive to teacher collegiality, particularly in schools with prevailing norms of autonomy and differential status. Building principals are clearly an important part of the process. The literature suggests that these conditions are usually not found without the contributions and support of principals. Principals in collegial schools promote norms for continuous improvement and collegiality. They hold and support expectations that improvement in teaching is a collective rather than an individual enterprise and that analysis, evaluation, and experimentation in concert with one's colleagues set the conditions under which teachers become more effective. Effective principals also structure interactions that promote the development of instructional competence by encouraging cooperative work arrangements, providing for teacher participation in technical decision making, and encouraging teachers to teach each other (see Peterson 1977-78).

There are other important issues. Collegial interaction and learning from peers do not occur in isolation from other improvement efforts. How, then, might we link positive collegial interaction to other means of enhancing teacher competence and effectiveness? How can we interrelate collegial environments and staff development? How is new information and knowledge from external sources brought into, exchanged, and adapted through collegial networks and then applied at the classrom level? Finally, what implications do new formal evaluation systems and new reward structures (e.g., performance-based pay and career ladder programs) have on encouraging or discouraging peer interaction?

External opportunities for professional development. External opportunities for professional development, including university coursework, conferences, and

institutes, have traditionally been widely used strategies for teacher improvement. While special one-time workshops, symposia, and conferences external to school systems seem to be a continuing part of the staff development picture, there is little evidence about their actual impact on the improvement of teacher performance and student learning. There is no question that teachers value such opportunities for professional development. Indeed, some school districts distribute these opportunities as rewards for effective instruction or perhaps for successful completion of noninstructional responsibilities. Many school systems have implicitly passed the responsibility for staff development to universities and other external organizations and have, as a result, developed little expertise and commitment to the management of teacher competence (see Schlechty & Whitford 1983).

As we noted in the introduction, external opportunities for professional development are often limited in terms of their relevance and usefulness to teachers in their day-to-day work. These limitations have caused many states and local school systems to move away from reliance on university-based staff development unless those efforts are genuinely collaborative and focused on specific and immediate needs of teachers. The problems associated with external opportunities for professional development and the call for greater collaboration among schools, school districts, and external providers raise a number of important issues. Clearly, universities, conferences, and institutes can be important sources of new knowledge for the improvement of teaching. But, how can these external sources of learning be more responsive to the needs and concerns of teachers? How, given the separation between schools and school districts and these external sources, the prevailing reward and organizational structures, and political relationships, can needed collaboration be accomplished in productive and cost-effective ways? How can these external opportunities be linked with in-school opportunities for professional development and what structures and opportunities can be developed to augment and support the learning that takes place outside of school within the school?

Several states and school districts have taken steps to address these issues to make external learning opportunities more useful and cost-effective. For example, Florida's practice of providing school districts with what amounts to vouchers to be used for staff development seems to have encouraged the responsiveness of local universities and other training sources to district-defined needs. But still, these district-level priorities may miss the mark for many teachers at the school and classroom levels. Another approach to these problems are newly proposed Professional Development Schools. A number of school systems and universities, including the University of Illinois-Chicago in collaboration with the Chicago Public Schools and Peabody College of Vanderbilt University with the Nashville Public Schools, have proposed such programs to serve as linkages between university-based education programs and the on-the-job experiences of beginning teachers. Staffed by both university faculty and experienced teachers from local school systems, these programs seek to combine resources and knowledge to help teachers solve common problems in practice. These and other initiatives provide important opportunities for study and may provide useful models for the development and implementation of similar programs in the future.

Productive work conditions. The learning opportunities, the effectiveness and motivation of teachers, and teacher retention are affected significantly by the conditions within which even the most competent teachers work. Hawley and

Rosenholtz (1984) recently reviewed hundreds of studies related to the school-level sources of student learning and identified ten types of organizational conditions that appear to facilitate effective teaching. These organizational conditions include:

1. a strong organizational "culture" in which key values and goals are clear and widely shared
2. mechanisms for providing teachers with feedback about their performance and the achievement of their students
3. little or no disruption of instructional time, ensurance that teachers have the material resources they need, and limitation of nonteaching tasks assigned to teachers
4. opportunities for facilitated task-related interaction among teaching peers
5. clearly defined roles and responsibilities within the school
6. a well-articulated curriculum that facilitates transitions of students between classes and grade levels and promotes collegial interaction among teachers
7. stability in programs and staffing
8. a climate that minimizes student discipline problems and provides support to teachers for dealing with problems that do occur
9. manageable student diversity and mechanisms to help teachers deal effectively with diversity that does exist within schools and classrooms
10. support from the school's external environments, especially parental involvement and assistance in the education of their children.

While research has identified important conditions of schools that relate to effective teaching and student learning, we are only now beginning to understand how these conditions can be created and sustained. It seems, then, that a crucial issue that must be addressed is how we can improve school-level conditions in ways that promote teacher learning and effectiveness, increase teacher motivation, and reduce levels of attrition among those teachers we wish to retain in the profession. Further, as the conceptual framework presented above suggests, it will be very important to determine how new policy initiatives designed to improve teacher quality and effectiveness mediate and are mediated by workplace conditions. Clearly, new initiatives related to teacher evaluation and incentives, particularly career ladder and performance-based pay plans, have the potential for dramatically altering not only the professional lives of individual teachers but also the conditions in which they work. And, as the literature on change and innovation indicates, the contexts in which policies are implemented, in this case the workplace conditions of the school, will have important implications for the degree to which these initiatives can achieve their objectives.

Teacher Motivation

We have thought about the problem of motivating teachers as the development of incentives that teachers perceive to be attainable and that they want to pursue because the incentives will meet certain needs teachers have. Numerous

factors shape the dynamics among these variables and their ultimate impact on teacher effectiveness.

Teachers bring to their work a range of different values and needs. These values and needs change over time both independently of and in response to the contexts and rewards of teaching. Work organizations typically have a number of different incentives they can employ in relation to employees' needs (see Hawley 1985a; Feimen-Nemser & Floden, in press). Schools, however, have not enjoyed access to many of the incentives of other workplaces because of limitations to career advancement, the nature of the salary structure, the isolation of teachers from their peers, the weakness of evaluation procedures, and the limited opportunities for professional growth and development.

Not surprisingly, much of the research on worker motivation has focused on pay. Since we cannot possibly deal here with all of the potential ways to increase the motivation of teachers and since teacher pay is so central to the current reform agendas in many states and localities, let us concern ourselves with the issue of teacher pay, and more particularly, performance-based pay.

Perhaps the most far reaching of the widely discussed proposals on the national school improvement agenda are those that would tie teachers' pay to their performance. Merit pay, as an independent improvement strategy, has had a troubled history (Johnson 1984). Merit pay has been abandoned by most districts that have tried it (Porwall 1979). And, there is little evidence that it is an effective motivational device even in the private sector (Lawler 1981). Most observers find the problems of implementing merit pay unsolvable (Johnson 1985) and where it does seem to work, its impact is largely innocuous (Cohen & Murnane 1985).

What is new about the current proposals for performance-based pay is that they are often tied to the idea of a career ladder that teachers can climb and thereby attain not only high pay but higher occupational status. Advocates of career ladder plans see them as motivational devices for those in the profession to improve and remain in teaching and as attractors for ambitious and bright young people who have eschewed teaching because it has "no future." There can be little doubt that career ladder plans are receiving a lot of attention. Several states have adopted a version thereof and a majority are said to be seriously considering their adoption (Cornett & Weeks 1985).

There appear to be few detractors from the notion that teacher careers should allow for advancement and for some kind of recognition for outstanding performance. But, if status and economic rewards are to be assigned on the basis of performance, then evaluation systems must be developed. There is considerable debate about whether evaluation plans can be devised that are technically sound, nondivisive, and facilitative of teacher improvement.

There are a number of issues that performance-based pay, career ladder, and evaluation plans pose for the improvement of teacher quality and effectiveness. They have the potential to restructure the profession and the working conditions of teachers. We need to study and understand their impact on teacher recruitment, retention, improvement, and performance, but to do so we must consider several important issues that relate to their development and implementation, and how they relate to the various contexts of teaching.

The most basic issue associated with the development and implementation of these types of policies and programs concerns assumptions about the very nature of teacher quality and effectiveness itself. Any policy or program that seeks to measure and/or reward levels of effective performance must answer questions such as: What makes a "good" or "effective" teacher? What are the appropriate roles for a teacher in his or her work? What are relevant teaching outcomes that can be used to determine levels of effectiveness? How can one relate teacher practice, or other indicators, to the outcomes one uses to determine effectiveness? All of these questions have a direct bearing on policy because they point to assumptions about policy goals and objectives. They also help us understand tensions that might arise between various stakeholders affected by the policy who hold different perspectives of teachers' roles and definitions and measurement of teacher effectiveness. Furthermore, policy assumptions create at least implicit goals for roles, work and performance. Policy assumptions that do not accurately reflect that which is important to teacher improvement and student learning may actually become counterproductive as teachers strive to meet policy goals.

A second important series of issues involve the relationships between policy and programs and the teaching contexts in which they are implemented. As we argued at the beginning of this paper, the contexts of teaching may mediate or be mediated by the implementation of new policy, and thus affect teacher decisions and outcomes. How policy, in the case various incentive and evaluation systems, acknowledges and deals with the importance of these contexts will have a lot to do with explaining both intended and unintended outcomes. For example, career ladder and state-mandated evaluation plans are likely to affect the lives of teachers in schools in profound ways. They seek to establish norms and standards that may or may not be consistent with school-level or personal norms and standards. They significantly alter the balance of power between states and localities. They often prescribe new roles for teachers and administrators, and this may result in changing the distribution of power, responsibilities, and relationships within schools. Of course, these plans are likely to influence the degree to which common values are shared and the nature of interactions among teachers and between teachers and administrators. By defining new and higher paid roles and responsibilities for teachers, career ladder plans may force a rethinking of the ways we organize instruction because they will inevitably drive up the costs of education unless adjustments are made in class sizes, staffing patterns, and instructional methods. Career ladder programs also raise to the fore issues of responsibility for staff development and how evaluated teachers use critical information with and without opportunities to improve their competence. Career ladder and performance-based pay plans also introduce new incentives that interact with the various extrinsic and intrinsic rewards currently available to teachers. How these new incentives interact with other rewards and how they affect the value teachers and prospective teachers give to each will influence how effective they are in achieving their objectives.

Of additional concern are the processes used by policymakers for the development and implementation of incentive and evaluation plans. How, for example, does the involvement (substantive or symbolic) or uninvolvement of teachers and teacher organizations affect the design, implementation, and outcomes of these plans? What roles do teachers play in the actual implementation of the plan and do these roles prescribe new responsibilities that alter their work and relationships with colleagues and students? Hatry and Greiner (1985)

identify several other major issues. What should be the objectives of the incentive plan? What type and size of rewards should be used? Who should be eligible for awards? How should teacher performance be evaluated? What elements should be evaluated? What evaluation procedures and processes should be used? Who should conduct the evaluations and how should evaluation data be used? How should teacher evaluations be linked to specific award amounts? To what extent can and should the teacher evaluation procedures also be used to identify ways to improve teacher performance? Finally, these programs raise important legal issues with respect to contracts, collective bargainning, and due process considerations. How these issues are dealt with in the development and implementation of incentive and evaluation plans will have important implications for the outcomes that are achieved.

Conclusion

The development and implementation of new policy in states and local school systems constitute an array of natural experiments that provide a unique opportunity to evaluate the impact of different initiatives to improve teacher quality and effectiveness. These natural experiments will allow us to address many of the issues we have raised in this paper, as well as further develop our knowledge and understanding of the profession and teachers' lives and work.

As we have noted throughout this paper, these policy initiatives have the potential to affect the teaching profession in dramatic ways. The development of these initiatives has, in varying degrees, proceeded on the basis of a growing and developing body of knowledge of teaching and of the profession. But there is simply a great deal more that we need to know about the profession if we are to understand the intended and unintended outcomes of these initiatives. And, we need to take advantage of the opportunity to study these initiatives to continue to develop our knowledge about the profession to help guide our future efforts to improve teacher quality and effectiveness.

References

Applied Systems Institute (1985, January). Tomorrow's teachers. Washington, DC: Applied Systems Institute.

Argyris, C. (1964). Integrating the individual and the organization. New York: Wiley.

Atkinson, J. W. (1958). Towards experimental analysis of human motivation in terms of motives, expectancies, and incentives. In J. W. Atkinson (Ed.), Motives in fantasy, action, and society. Princeton, NJ: Van Nostrand.

Bishop, J. M. (1977). Organizational influences on the work orientation of elementary teachers. Sociology of Work and Occupation, 4, 171-208.

Bredeson, P. V., Fruth, M. J., & Kasten, K. L. (1983). Organizational incentives and secondary school teaching. Journal of Research and Development in Education, 16, 52-56.

Brophy, J. E. & Good, T. L. (in press). Teacher behavior and student achievement. In M. Wittrock (Ed.), Third handbook of research on teaching. New York: Macmillan.

Brown, B. W. & Saks, D. H. (1975). The production and distribution of cognitive skills within schools. Journal of Political Economy, 83, 571-593.

Buchmann, M. & Schwille, J. (1983). Education: The overcoming of experience. American Journal of Education, 92, 30-51.

Carnegie Foundation for the Advancement of Teaching (1983). High school: A report on American secondary education. New York: Carnegie Foundation.

Chapman, D. W. (1983). Career satisfaction of teachers. Educational Research Quarterly, 7, 40-50.

Cohen, D. & Murnane, R. (1985). The merits of merit pay. Public Interest, 80, 3-30.

Cornett, L. & Weeks, K. (1985, July). Career ladder plans: Trends and emerging issues--1985. Atlanta: Southern Regional Education Board, Career Ladder Clearinghouse.

Darling-Hammond, L. (1984, July). Beyond the commission reports: The coming crisis in teaching. Santa Monica, CA: Rand.

Darling-Hammond, L., Wise, A. E., & Pease, S. L. (1983). Teacher evaluation in the organizational context: A review of the literature. Review of Educational Research, 53, 285-328.

Dreeben, R. (1970). The nature of teaching. Glenview, IL: Scott Foresman.

Education Commission of the States (1983). Action for excellence. Denver: Education Commission of the States.

Elmore, R. T. & McLaughlin, M. (1984). Steady work: The task of educational reform (draft paper). San Francisco: Far West Laboratory.

Evertson, C. M., Hawley, W. D., & Zlotnik, M. S. (1985). Making a difference in educational quality through teacher education. Journal of Teacher Education, 36(3), 2-11.

Feiman-Nemser, S. & Floden, R. E. (in press). The cultures of teaching. In M. Wittrock (Ed.), Third handbook of research on teaching. New York: Macmillan.

Feistritzer, C. E. (1984). The making of a teacher: A report on teacher education and certification. Washington, DC: National Center for Education Information.

Fenstermacher, G. & Berliner, D. C. (1983, November). A conceptual framework for the analysis of staff development. Santa Monica, CA: Rand.

Frataccia, E. V. & Hennington, I. (1982). Satisfaction of hygiene and motivation needs of teachers who resigned from teaching. Paper presented at the annual meeting of the Southwest Educational Research Association, Austin, TX.

Fullan, M. (1982). The meaning of educational change. New York: Teachers College Press.

Fuller, F. F. (1969). Concerns of teachers: A developmental characterization. American Educational Research Journal, 6, 207-226.

Garde, O. (1978). Reality shock: A problem among first year teachers. Clearinghouse, 51, 405-409.

Glidewell, J. C., Tucker, S., Todt, M., & Cox, S. (1983). Professional support systems: The teaching profession. In A. Nadler, J. D. Fisher, & B. M. Depaulo (Eds.), New directions in helping: Applied perspectives on help-seeking and receiving (Vol. 3). New York: Academic Press.

Goertz, M. E., Ekstrom, R. B., & Coley, R. J. (1984, October). The impact of state policy on entrance into the teaching profession. Princeton, NJ: Educational Testing Service.

Hatry, H. P. & Greiner, J. M. (1985). Issues and case studies in teacher incentive plans. Washington, DC: Urban Institute Press.

Hawley, W. D. (1985a). The limits and potential of performance-based pay as a source of school improvement. In H. Johnson (Ed.), Merit, money, and teachers' careers. Washington, DC: University Press of America.

Hawley, W. D. (1985b). Notes on the teacher shortage issue: Directions for federal, state, and local policies. Testimony before the Subcommittee on Postsecondary Education of the Committee on Education and Labor, U.S. House of Representatives.

Hawley, W. D. & Rosenholtz, S. J. (1984). Good schools: What research says about improving student achievement. Peabody Journal of Education, 61(4), 1-178.

Holland, J. (1973). Making vocational choices: A theory of careers. Englewood Cliffs, NJ: Prentice-Hall.

Hoy, W. K. (1969). Pupil control ideology and organizational socialization: A further examination of the influence of experience on the beginning teacher. School Review, 77, 257-265.

Johnson, H. (Ed.) (1985). Merit, money, and teachers' careers. Washington, DC: University Press of America.

Johnson, S. M. (1984). Merit pay for teachers: A poor prescription for reform. Harvard Educational Review, 54, 175-185.

Joyce, B., Bush, R., & McKibbin, M. (1981). Information and opinion from the California staff development study. Sacramento: California State Department of Education.

Joyce, B. & Clift, R. (1984). The Phoenix agenda: Essential reform in teacher education. Educational Researcher, 13(4), 5-18.

Joyce, B. & Showers, B. (1983). Power in staff development through research on training. Alexandria, VA: Association for Supervision and Curriculum Development.

Katz, D. & Kahn, R. L. (1978). The social psychology of organizations (2nd edition). New York: Wiley.

Lawler, E. E. (1981). Pay and organization development. Reading, MA: Addison-Wesley.

Litt, M. D. & Turk, D. C. (1983, April). Stress, dissatisfaction, and intention to leave teaching in experienced public high school teachers. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. American Educational Research Journal, 19, 325-340.

Lortie, D. C. (1975). School teacher: A sociological study. Chicago: University of chicago Press.

Loucks, S. F. & Melle, M. (1982). Evaluation of staff development: How do you know it took? Journal of Staff Development, 3, 102-117.

McDonald, F. & Elias, P. (1983). Study of induction programs for beginning teachers (Vol. I). Princeton, NJ: Educational Testing Service.

Manski, C. F. (1985). Academic ability, earnings, and the decision to become a teacher: Evidence from the National Longitudinal Study of the High School Class of 1972 (Working Paper No. 1539). Cambridge, MA: National Bureau of Economic Research.

Moore, D. R. & Hyde, A. A. (1980). An analysis of staff development programs and their costs in three urban school districts. Chicago: Design for Change.

Murnane, R. J. (1975). The impact of school resources on the learning of inner city children. Cambridge, MA: Ballinger.

National Commission on Excellence in Education (1983). A nation at risk: The imperative for educational reform. Washington, DC: National Commission on Excellence in Education.

National Science Board (1983). Educating Americans for the 21st century. Washington, DC: National Science Board.

Page, F. M., Jr. & Page, J. A. (1982). Perceptions of teaching may be influencing current shortage of teachers. College Student Journal, 16, 308-311.

Peterson, K. D. (1977-78). The principal's tasks. Administrator's Notebook, 26(8), 1-4.

Plisko, V. W. (Ed.) (1983). The condition of education. Washington, DC: National Center for Education Statistics.

Plisko, V. W. (Ed.) (1984). The condition of education. Washington, DC: National Center for Education Statistics.

Porwall, P. J. (1979). Merit pay for teachers. Arlington, VA: Educational Research Service.

Robertson, S. D., Keith, T. Z., & Page, E. B. (1983). Now who aspires to teach? Educational Researcher, 12(6), 13-19.

Rosenholtz, S. J. & Smylie, M. A. (1984). Teacher compensation and career ladders. Elementary School Journal, 85, 149-166.

Rowan, B. (1985). The assessment of school effectiveness. In R. M. J. Kyle (Ed.), Reaching for excellence: An effective schools sourcebook. Washington, DC: National Institute of Education.

Saks, D. H. (1984, August). A legacy for the 21st century: Investment opportunities in our children's schooling (Report to the Subcommittee on Business and the Schools of the Committee for Economic Development). Nashville, TN: Vanderbilt University.

Schlechty, P. C. & Vance, V. S. (1981). Do academically able teachers leave education? The North Carolina case. Phi Delta Kappan, 63, 106-112.

Schlechty, P. C. & Vance, V. S. (1983). Recruitment, selection, and retention: The shape of the teaching force. Elementary School Journal, 83, 469-487.

Schlechty, P. C. & Whitford, B. L. (1983). The organizational context of school systems and the functions of staff development. In G. A. Griffin (Ed.), Staff development. 82nd yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press.

Shulman, L. S. (in press). Research programs for the study of teaching: A contemporary perspective. In M. Wittrock (Ed.), Third handbook of research on teaching. New York: Macmillan.

Silver, C. B. (1973). Black teachers in urban schools. New York: Preager.

Silvernail, D. L. & Costello, M. H. (1983). Control perspectives, anxiety levels, and teaching concerns. Journal of Teacher Education, 34(4), 32-37.

Soar, R. S. & Soar, R. M. (1983). Context effects in the teaching-learning process. In D. C. Smith (Ed.), Essential knowledge for beginning educators. Washington, DC: American Association for Colleges for Teacher Education and ERIC Clearninghouse for Teacher Education.

Sparks, G. M. (1983). Synthesis of research on staff development for effective teaching. Educational Leadership, 41(4), 65-72.

Summers, A. A. & Wolfe, B. L. (1977). Do schools make a difference? American Economic Review, 67, 639-652.

Sweet, J. A. & Jacobsen, L. A. (1983). Demographic aspects of the supply and demand for teachers. In L. S. Shulman & G. Sykes (Eds.), Handbook of teaching and policy. New York: Longman.

U.S. Department of Labor (1984). Employment and earnings: Professional, administrative, technical, and clerical pay. Washington, DC: U.S. Government Printing Office.

Vance, V. S. & Schlechty, P. C. (1982). The distribution of academic ability in the teaching force: Policy implications. Phi Delta Kappan, 64, 22-27.

Veenman, S. (1984). Perceived problems of beginning teachers. Review of Educational Research, 54, 143-178.

Vroom, V. H. (1964). Work and motivation. New York: Wiley.

Wade, R. K. (1984). What makes a difference in inservice teacher education: A meta-analysis of research. Educational Leadership, 42(4), 48-54.

Warren, R. L. (1975). Context and isolation: The teaching experience in an elementary school. Human Organization, 34, 139-148.

Weaver, W. T. (1981). Demography, quality, and decline: The challenge for schools of education for the 1980's. In Policy for the education of educators: Issues and implications. Washington, DC: American Association for Colleges of Teacher Education.

Wendling, W. & Cohen J. (1981). Education resources and student achievement: Good news for schools. Journal of Education Finance, 7, 44-63.

Wood, K. E. (1978). What motivates students to teach? Journal of Teacher Education, 29, 48-50.